

MICROBOLOMETER FOCAL PLANE ARRAY METHODS AND CIRCUITRY

ABSTRACT OF THE DISCLOSURE

Microbolometer circuitry and methods are disclosed to
5 allow an individual microbolometer or groups of
microbolometers, such as a microbolometer focal plane array,
to operate over a wide temperature range. Temperature
compensation is provided, such as through circuitry and/or
calibration methods, to reduce non-uniform behavior over the
10 desired operating temperatures. For example, the relative
mismatch in the temperature coefficient of resistance of an
active microbolometer and a reference microbolometer is
compensated by employing a variable resistor in series with
the active microbolometer. The variable resistor can be
15 calibrated over the desired temperature range to minimize
the affect of the relative mismatch. Various other circuit
implementations, calibration methods, and processing of the
microbolometer circuit output can be employed to provide
further compensation.

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